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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,664	12/06/2003	Philip J. Ellerbrock	038190/270529	8862

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EXAMINER	
DANG, KHANH NMN	

ART UNIT	PAPER NUMBER
2111	

DATE MAILED: 09/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/728,664	ELLERBROCK ET AL.	
	Examiner	Art Unit	
	Khanh Dang	2111	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-27 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-27 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Khanh Dang

Khanh Dang
Primary Examiner

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 12062003.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

The claims are misnumbered. Misnumbered claims 10-28 have been renumbered 9-27.

In claims 6 and 20, before "information," the word "a" should be changed to – an - -.

Claim Rejections - 35 USC § 112

Claims rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims1-6, 8, 9, renumbered claims 10, 11, 15-19, and 21-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Vanbuskirk et al. (Vanbuskirk).

As broadly drafted, these claims do not define any instruction step that differs from Vanbuskirk.

With regard to claim 1, Vanbuskirk discloses a protocol stored on a computer-readable medium (it is inherent that the RISC protocol is stored and executed by the UART 46/78) for transmitting commands and data between a bus controller (ASIC with the bus master control logic 56, the four HSRT's 48, 50, 52, and 54, the microprocessor support logic 41, the mail registers 43 and the interrupt request logic (IRQ) 49 conventionally implemented thereon) and a network device interface (providing serial interface to serial devices) across a common digital network, wherein said protocol comprises a set of low level instructions (the internal architecture of the UART 46/78 includes three reduced instruction set or "set of low level instructions" (RISC) processors for supporting the eight asynchronous lines' bit processing, as well as character buffering, flow control, and other character processing capabilities for sending respective commands and data. In addition, the UART 46/78 provides character receive and transmit buffers for each of the eight asynchronous communications channels) such that it is possible to implement at least one of the bus controller and the network device interface as a state machine (also state machine in Vanbuskirk).

With regard to claim 2, RISC processor (*R*educed *I*nstruction *S*et *C*omputer) is an arithmetic-logic unit that uses a minimal instruction set, and it is clear that each instruction causes at least one of the bus controller and network device interface to perform a single operation only.

With regard to claim 3, RISC processor (*R*educed *I*nstruction *S*et *C*omputer) is an arithmetic-logic unit that uses a minimal instruction set such that at least one of the

NDI device and the bus controller is a state machine implemented as an ASIC (see also claim 1 above).

With regard to claim 4, it is clear that the RISC protocol includes at least one of a command and a data structure (instruction set) for sending respective commands and arguments to the network device.

With regard to claim 5, it is clear that the RISC protocol used by a n-bit RSCI processor uses messages having bit lengths that vary based on at least one of the command and data being transmitted in the message.

With regard to claim 6, it is clear that no bit in the RISC instruction represents a block size for the message or a checksum for the message.

With regard to claim 8, in Vanbuskirk, the RISC protocol uses messages that contain data representing a flag bit (parity error flag in Vanbuskirk) that indicates if an error condition exists in the network device interface.

With regard to renumbered claim 9, the protocol uses messages that contain data representing at least one parity bit (also parity bit in Vanbuskirk) that is used to check for errors (parity error) in the message.

With regard to renumbered claim 10, since the serial devices are communicated via a serial interface, it is clear that instruction must be sent one at a time.

With regard to renumbered claim 11, it is clear that the protocol is at least transmitted in a Universal Asynchronous Receiver Transmitter (UART) format protocol (see discussion re claim 1 above).

With regard to renumbered claims 15-19, 21-24, see discussion above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 7 and renumbered claim 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vanbuskirk.

Vanbuskirk, as discussed above, discloses the claimed invention including the use of reduced instruction set. However, Vanbuskirk does not disclose the that the instruction includes a sync pattern. However, the use of such sync pattern is old and well-known as evidenced by at least Pomfret et al. (Pomfret), Fig. 2 and description thereof. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the instruction with a sync pattern, sine the Examiner takes Official Notice that such a sync pattern is old and well-known as evidenced by at least Pomfret et al. (Pomfret), Fig. 2 and description thereof; and using the same in Vanbuskirk for synchronizing data transfer only involves ordinary skill in the art.

Renumbered claims 12 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vanbuskirk.

Vanbuskirk, as discussed above, discloses the claimed invention including the use of; bits representing an encoded address (also encoded address in Vanbuskirk);

bits representing an encoded command (also encoded command in Vanbuskirk); and an encoded parity bit (also parity bit in Vanbuskirk). Note also UART device must be fully in compliance with UART protocol. That is the frame must include encoded command, address, and parity. See the originally filed specification, page 29, lines 14-26, for example. However, Vanbuskirk does not disclose the use of bits representing a command sync pattern. However, the use of bits representing sync pattern is old and well-known as evidenced by at least Pomfret et al. (Pomfret), Fig. 2 and description thereof. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide Vanbuskirk with bits representing sync pattern, sine the Examiner takes Official Notice that the use of bits representing sync pattern is old and well-known as evidenced by at least Pomfret et al. (Pomfret), Fig. 2 and description thereof; and using the same in Vanbuskirk for synchronizing data transfer only involves ordinary skill in the art.

Renumbered claims 13 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vanbuskirk.

Vanbuskirk, as discussed above, discloses the claimed invention including the use of; bits representing an encoded argument, an encoded flag bit (also flag bit in Vanbuskirk); and an encoded parity bit (also parity bit in Vanbuskirk). Note also UART device including Vanbuskirk's must be fully in compliance with UART protocol. That is the frame must include encoded argument, flag bit and parity bit. See the originally filed specification, page 29, lines 14-26, for example. However, Vanbuskirk does not disclose

the use of bits representing a sync pattern. However, the use of bits representing sync pattern is old and well-known as evidenced by at least Pomfret et al. (Pomfret), Fig. 2 and description thereof. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide Vanbuskirk with bits representing sync pattern, sine the Examiner takes Official Notice that the use of bits representing sync pattern is old and well-known as evidenced by at least Pomfret et al. (Pomfret), Fig. 2 and description thereof; and using the same in Vanbuskirk for synchronizing data transfer only involves ordinary skill in the art.

Renumbered claims 14 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vanbuskirk.

Vanbuskirk, as discussed above, discloses the claimed invention including the use of; bits representing an encoded data, an encoded flag bit (also flag bit in Vanbuskirk); and an encoded parity bit (also parity bit in Vanbuskirk). Note also UART device including Vanbuskirk's must be fully in compliance with UART protocol. That is the frame must include encoded data, flag bit and parity bit. See the originally filed specification, page 29, lines 14-26, for example. However, Vanbuskirk does not disclose the use of bits representing a sync pattern. However, the use of bits representing sync pattern is old and well-known as evidenced by at least Pomfret et al. (Pomfret), Fig. 2 and description thereof. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide Vanbuskirk with bits representing sync pattern, sine the Examiner takes Official Notice that the use of bits representing sync

pattern is old and well-known as evidenced by at least Pomfret et al. (Pomfret), Fig. 2 and description thereof; and using the same in Vanbuskirk for synchronizing data transfer only involves ordinary skill in the art.

U.S. Patent Nos. 5,675,777 to Glickman, 4,449,202 to Knapp et al., 4,785,469 to Joshi et al., and 5,201,056 to Daniel et al. are cited as relevant art.

Any inquiry concerning this communication should be directed to Khanh Dang at telephone number 703-308-0211.

Khanh Dang
Primary Examiner